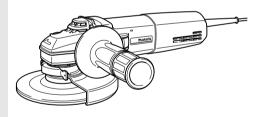


Angle Grinder

MODEL 9560C MODEL 9560CV MODEL 9563C MODEL 9563CV MODEL 9561C MODEL 9561CV MODEL 9564C MODEL 9564CV MODEL 9562C MODEL 9562CV MODEL 9565C MODEL 9565CV



001005



INSTRUCTION MANUAL

MARNING:

For your personal safety, READ and UNDERSTAND before using. SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

SPECIFICATIONS

Safety class		□ /II			
Net weight		1.7 kg	1.8 kg	1.7 kg	1.8 kg
Overall length		289 mm	299 mm	289 mm	299 mm
No load speed (min ⁻¹)		11,000	11,000	2,800 - 11,000	2,800 - 11,000
	125 mm M14	9562C	9565C	9562CV	9565CV
Depressed center wheel diameter Spindle thread	115 mm M14	9561C	9564C	9561CV	9564CV
	100 mm M10	9560C	9563C	9560CV	9563CV

- Due to our continuing programme of research and development, the specifications herein are subject to change without notice.
- · Note: Specifications may differ from country to country.

Symbols

END202-2

The following show the symbols used for the tool. Be sure that you understand their meaning before use.



.....Read instruction manual.



.....DOUBLE INSULATION



......Wear safety glasses.



.....Only for EU countries

Do not dispose of electric equipment together with household waste material!

In observance of European Directive 2002/96/EC on waste electric and electronic equipment and its implementation in accordance with national law, electric equipment that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.

Intended use

The tool is intended for grinding, sanding and cutting of metal and stone materials without the use of water.

Power supply

The tool should be connected only to a power supply of the same voltage as indicated on the nameplate, and can only be operated on single-phase AC supply. They are double-insulated in accordance with European Standard and can, therefore, also be used from sockets without earth wire.

For Model 9560C/9560CV/9561C/9561CV/9562C/ 9562CV

For European countries only

Noise and Vibration

The typical A-weighted sound pressure level is 83 dB (A).

The noise level under working may exceed 85 dB (A).

- Wear ear protection. -

The typical weighted root mean square acceleration value is 4 m/s².

For Model 9563C/9563CV/9564C/9564CV/9565C/ 9565CV

For European countries only

Noise and Vibration

The typical A-weighted sound pressure level is 83 dB (A).

The noise level under working may exceed 85 dB (A).

Wear ear protection.

The typical weighted root mean square acceleration value is 5 m/s².

EC-DECLARATION OF CONFORMITY

We declare under our sole responsibility that this product is in compliance with the following standards of standardized documents, HD400, EN50144, EN55014, EN50100 in accordance with Council Directives, 73/23/EEC, 89/336/EEC, 98/37/EC.

Yasuhiko Kanzaki CE 2003



Director

MAKITA INTERNATIONAL EUROPE LTD.

Michigan Drive, Tongwell, Milton Keynes, Bucks MK15 8JD, ENGLAND

SAFETY INSTRUCTIONS

ENA001-2

↑ WARNING:

When using electric tools, basic safety precautions, including the following, should always be followed to reduce the risk of fire, electric shock and personal injury. Read all these instructions before operating this product and save these instructions.

For safe operations:

Keep work area clean.

Cluttered areas and benches invite injuries.

2. Consider work area environment.

Do not expose power tools to rain. Do not use power tools in damp or wet locations. Keep work area well lit. Do not use power tools where there is risk to cause fire or explosion.

3. Guard against electric shock.

Avoid body contact with earthed or grounded surfaces (e.g. pipes, radiators, ranges, refrigerators).

4. Keep children away.

Do not let visitors touch the tool or extension cord. All visitors should be kept away from work area.

5. Store idle tools.

When not in use, tools should be stored in a dry, high or locked up place, out of reach of children.

6. Do not force the tool.

It will do the job better and safer at the rate for which it was intended.

Use the right tool.

Do not force small tools or attachments to do the job of a heavy duty tool. Do not use tools for purposes not intended; for example, do not use circular saws to cut tree limbs or logs.

8. Dress properly.

Do not wear loose clothing or jewellery, they can be caught in moving parts. Rubber gloves and non-skid footwear are recommended when working outdoors. Wear protecting hair covering to contain long hair.

9. Use safety glasses and hearing protection.

Also use face or dust mask if the cutting operation is dusty.

10. Connect dust extraction equipment.

If devices are provided for the connection of dust extraction and collection facilities ensure these are connected and properly used.

11. Do not abuse the cord.

Never carry the tool by the cord or yank it to disconnect it from the socket. Keep the cord away from heat, oil and sharp edges.

12. Secure work.

Use clamps or a vice to hold the work. It is safer than using your hand and it frees both hands to operate the tool.

13. Do not overreach.

Keep proper footing and balance at all times.

14. Maintain tools with care.

Keep cutting tools sharp and clean for better and safer performance. Follow instructions for lubrica-

tion and changing accessories. Inspect tool cord periodically and if damaged have it repaired by an authorized service facility. Inspect extension cords periodically and replace, if damaged. Keep handles dry, clean and free from oil and grease.

15. Disconnect tools.

When not in use, before servicing and when changing accessories such as blades, bits and cutters.

16. Remove adjusting keys and wrenches.

Form the habit of checking to see that keys and adjusting wrenches are removed from the tool before turning it on.

17. Avoid unintentional starting.

Do not carry a plugged-in tool with a finger on the switch. Ensure switch is off when plugging in.

18. Use outdoor extension leads.

When tool is used outdoors, use only extension cords intended for outdoor use.

19. Stay alert.

Watch what you are doing. Use common sense. Do not operate tool when you are tired.

20. Check damaged parts.

Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, free running of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless otherwise indicated in this instruction manual. Have defective switches replaced by an authorized service facility. Do not use the tool if the switch does not turn it on and off.

21. Warning.

The use of any accessory or attachment, other than those recommended in this instruction manual or the catalog, may present a risk of personal injury.

22. Have your tool repaired by a qualified person.

This electric tool is in accordance with the relevant safety requirements. Repairs should only be carried out by qualified persons using original spare parts, otherwise this may result in considerable danger to the user.

ADDITIONAL SAFETY RULES

ENB031-6

- Always use eye and ear protection. Other personal protective equipment such as dust mask, gloves, helmet and apron should be worn.
- Always be sure that the tool is switched off and unplugged before carrying out any work on the tool.
- 3. Keep guards in place.
- 4. Use only wheels with correct size and wheels having a maximum operating speed at least as high as the highest No Load Speed marked on the tool's nameplate. When using depressed center wheels, be sure to use only fiberglassreinforced wheels.
- Check the wheel carefully for cracks or damage before operation. Replace cracked or damaged wheel immediately.
- Observe the instructions of the manufacturer for correct mounting and use of wheels. Handle and store wheels with care.
- 7. Do not use separate reducing bushings or adaptors to adapt large hole abrasive wheels.
- 8. Use only flanges specified for this tool.
- Do not damage the spindle, the flange (especially the installing surface) or the lock nut. Damage to these parts could result in wheel breakage.
- For tools intended to be fitted with threaded hole wheel, ensure that the thread in the wheel is long enough to accept the spindle length.
- 11. Before using the tool on an actual workpiece, test run the tool at the highest no load speed for at least 30 seconds in a safe position. Stop immediately if there is any vibration or wobbling that could indicate poor installation or a poorly balanced wheel. Check the tool to determine the cause.
- 12. Check that the workpiece is properly supported.

- 13. Hold the tool firmly.
- 14. Keep hands away from rotating parts.
- 15. Make sure the wheel is not contacting the workpiece before the switch is turned on.
- Use the specified surface of the wheel to perform the grinding.
- 17. Do not use cutting off wheel for side grinding.
- Watch out for flying sparks. Hold the tool so that sparks fly away from you and other persons or flammable materials.
- Pay attention that the wheel continues to rotate after the tool is switched off.
- Do not touch the workpiece immediately after operation; it may be extremely hot and could burn your skin.
- 21. Position the tool so that the power cord always stays behind the machine during operation.
- If working place is extremely hot and humid, or badly polluted by conductive dust, use a shortcircuit breaker (30 mA) to assure operator safety.
- 23. Do not use the tool on any materials containing asbestos.
- 24. Do not use water or grinding lubricant.
- 25. Ensure that ventilation openings are kept clear when working in dusty conditions. If it should become necessary to clear dust, first disconnect the tool from the mains supply (use non metallic objects) and avoid damaging internal parts.
- When use cut-off wheel, always work with the dust collecting wheel guard required by domestic regulation.
- Cutting discs must not be subjected to any lateral pressure.

SAVE THESE INSTRUCTIONS

FUNCTIONAL DESCRIPTION

Always be sure that the tool is switched off and unplugged before adjusting or checking function on the tool.



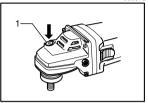
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Shaft lock



Never actuate the shaft lock when the spindle is moving. The tool may be damaged.

Press the shaft lock to prevent spindle rotation when installing or removing accessories.



1. Shaft lock

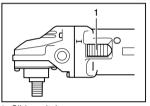
Switch action



Before plugging in the tool, always check to see that the slide switch actuates properly and returns to the "OFF" position when the rear of the slide switch is depressed.

To start the tool, slide the slide switch toward the "I (ON)" position. For continuous operation, press the front of the slide switch to lock it.

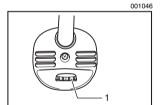
To stop the tool, press the rear of the slide switch, then slide it toward the "O (OFF)" position.



Slide switch

Speed adjusting dial





1. Speed adjusting dial

For 9560CV, 9561CV, 9562CV, 9563CV, 9564CV, 9565CV

The rotating speed can be changed by turning the speed adjusting dial to a given number setting from 1 to 5.

Higher speed is obtained when the dial is turned in the direction of number 5. And lower speed is obtained when it is turned in the direction of number 1. Refer to the below table for the relationship between the number settings on the dial and the approximate rotating speed.

	000025
Number	min ⁻¹ (R.P.M.)
1	2,800
2	4,000
3	6,500
4	9,000
5	11,000



- If the tool is operated continuously at low speeds for a long time, the motor will get overloaded and heated up.
- The speed adjusting dial can be turned only as far as 5 and back to 1. Do not force it past 5 or 1, or the speed adjusting function may no longer work.

C00025

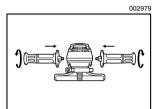
The tools equipped with electronic function are easy to operate because of the following features.

- Electronic constant speed control Possible to get fine finish, because the rotating speed is kept constantly even under the loaded condition.
- Soft start feature
 - Soft start because of suppressed starting shock.
- Overload protector

When the tool would be employed over the admissible load, it will stop automatically to protect the motor and wheel. When the load will come to the admissible level again, the tool can be started automatically.

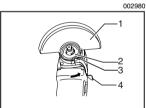
ASSEMBLY

Always be sure that the tool is switched off and unplugged before carrying out any work on the tool.



Installing side grip (handle)

Always be sure that the side grip is installed securely before operation. Screw the side grip securely on the position of the tool as shown in the figure.



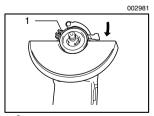
Installing or removing wheel guard

The wheel guard must be fitted on the tool so that the closed side of the guard always points toward the operator.

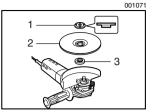
Loosen the lever on the wheel guard. Mount the wheel guard with the protrusion on the wheel guard band aligned with the notch on the bearing box. Then rotate the wheel guard around 180 degrees. Tighten the lever to fasten the wheel guard. If the lever is too tight or too loosen to fasten the wheel guard, loosen or tighten the screw to adjust the tightening of the wheel guard band.

To remove wheel guard, follow the installation procedure in reverse.

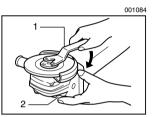
- 1. Wheel guard
- 2. Bearing box
- 3. Screw
- 4. Lever



1. Screw



- 1. Lock nut
- Depressed center grinding wheel/ Multi-disc
- 3. Inner flange



- 1. Lock nut wrench
- 2. Shaft lock

Installing or removing depressed center grinding wheel/ Multi-disc (accessory)

Mount the inner flange onto the spindle. Fit the wheel/disc on the inner flange and screw the lock nut onto the spindle.

To tighten the lock nut, press the shaft lock firmly so that the spindle cannot revolve, then use the lock nut wrench and securely tighten clockwise.

To remove the wheel, follow the installation procedure in reverse.

OPERATION

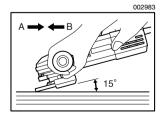
⚠ WARNING:

- It should never be necessary to force the tool. The weight of the tool applies adequate pressure. Forcing and excessive pressure could cause dangerous wheel breakage.
- ALWAYS replace wheel if tool is dropped while grinding.
- NEVER bang or hit grinding disc or wheel onto work.
- Avoid bouncing and snagging the wheel, especially when working corners, sharp edges etc. This can cause loss of control and kickback.
- NEVER use tool with wood cutting blades and other sawblades. Such blades when used on a grinder frequently kick and cause loss of control leading to personal injury.

⚠ CAUTION:

 After operation, always switch off the tool and wait until the wheel has come to a complete stop before putting the tool down.

Grinding and sanding operation

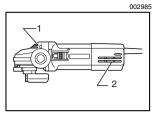


ALWAYS hold the tool firmly with one hand on housing and the other on the side handle. Turn the tool on and then apply the wheel or disc to the work-piece.

In general, keep the edge of the wheel or disc at an angle of about 15 degrees to the workpiece surface.

During the break-in period with a new wheel, do not work the grinder in the B direction or it will cut into the workpiece. Once the edge of the wheel has been rounded off by use, the wheel may be worked in both A and B direction.

MAINTENANCE



- 1. Exhaust vent
- 2. Inhalation vent

⚠ CAUTION:

 Always be sure that the tool is switched off and unplugged before attempting to perform inspection or maintenance.

The tool and its air vents have to be kept clean. Regularly clean the tool's air vents or whenever the vents start to become obstructed.

To maintain product SAFETY and RELIABILITY, repairs, carbon brush inspection and replacement, any other maintenance or adjustment should be performed by Makita Authorized Service Centers, always using Makita replacement parts.

ACCESSORIES

⚠ CAUTION:

These accessories or attachments are recommended for use with your Makita tool specified in this manual. The
use of any other accessories or attachments might present a risk of injury to persons. Only use accessory or
attachment for its stated purpose.

If you need any assistance for more details regarding these accessories, ask your local Makita service center.

- Wheel guard (Wheel cover)
- Inner flange
- · Depressed center wheels
- Lock nut (For depressed center wheel)
- Rubber pad
- Abrasive discs

- Lock nut (For abrasive disc)
- Lock nut wrench
- Wire cup brush
- Wire bevel brush 85
- Side Grip
- · Dust collecting wheel guard

Memo			

Memo	

Memo			

Makita Corporation Anjo, Aichi, Japan